

ABSTRACT

An integrated circuit (IC) chip has a metal network
5 of electrical power distribution lines which have a thermal
conductance at least an order of magnitude greater than
underlying thin film electrical interconnects. These lines
are deposited on the surface of the chip (FIG. 2), located
directly over active IC components, and electrically and
10 thermally connected vertically to selected active
components below the lines. Electrical conductors are
operable to connect the lines to an outside source, and
additional electrically non-functional conductors are
distributed on the lines, operable to steepen the thermal
15 gradient for thermal flux away from said active components
and lines.